

July-August, 1966

Conservation Pledge

I give my
pledge as an American
to save and faithfully to
defend from waste the
natural resources of
my country—its soil
and minerals, its
forests, waters
and wildlife

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Bass get big in Louisiana and when a little girl holds up a big one, it is a big occasion for her. The expression on her face clearly indicates that. Trophy bass such as this one caught in northeast Louisiana are highly prized. Most anglers fortunate enough to catch one this size will have it mounted for display. They do not always come this big, but there are enough of them around to keep bass fishermen trying for the "big one." (Photo by John Blanchard)

LOUISIANA *Conservationist*

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SEASONAL

Marsh Scenes

Robert H. Chabreck and Ted Joanen

LOUISIANA'S SPRAWLING coastline provides the outdoor enthusiast with recreation on a year-round-basis. Yet, a winter visitor to the marshes, such as the duck hunter, would hardly recognize the area where he spent many anxious hours during December should he return in mid-summer. A marsh scene during one season will have a very different appearance during the next.

The *winter marsh scene* is the one we see most often. The winter is the *season for utilization* and since early times men have been attracted to the marshes for the purpose of harvesting a part of the wildlife crop.

The hunter, trapper and fisherman can remember the scene, yet all see it from a different angle. The hunter remembers large ponds with the shoreline partially submerged. The vegetation of the previous summer shows the effects of a frost and the driving northerly winds. These winds leave a lasting impression, particularly upon a winter fisherman along the coast. Not only the wind but the associated low tides and exposed reefs are typical scenes.

The trapper finds that nutria becomes more evident during the winter as the protective cover of grass disappears, water levels rise and the animals are forced to search for food. A pleasant scene is the growing muskrat bed, as the animal adds material daily to keep it above the water.

The Louisiana marshes during the winter months are home to over 5 million ducks and geese. A typical scene to everyone is the V-shaped



A Winter Scene—Many thousands of blue and snow geese winter in the coastal marshes. Pictured above is a flock moving into a freshly burned area.



A scene for beginning—The banks of the many marsh ponds and pot holes provide ideal nesting cover for the resident Mottled Duck.

flight in the sky as a flock moves from one area to another.

In winter the vegetation is dormant and few evergreen plants are found in the freshwater marshes. However, in brackish and salt water marshes much of the grass remains green, but yet growth is very slow. The drab color of the dead or dying vegetation in the winter marsh is an indication of the amount that will be returned to the soil to provide nourishment for next year's crop.

The surface of the marsh, although it may be blanketed with a foot of water, is covered with seeds produced during previous summers. Studies on Rockefeller Refuge in Southwestern Louisiana show that these seeds are valuable duck foods and are present very often in amounts exceeding 750 pounds per acre.

The seeds are the end product of a long series of events that began the previous spring. The spring is a very interesting and beautiful season in the marsh, but one which most people seldom witness.

A *season of beginning and growth* could well describe *spring* in the coastal marshes. Overhead the various winter residents can be seen beginning their northward migration, also the turtles and alligators make an appearance after their long winter hibernation absence. Pairs of mottled ducks are observed scouting the marsh edge for a nest site. Water levels in the marsh begin receding as the rains so common during winter become fewer and evaporation increases. As the marsh floor becomes exposed various seeds such as wild millet, foxtail, sprangletop and cyperus

begin germination. The fresher marshes grow various annual grasses and sedges which produce seeds highly prized by waterfowl. In the brackish and salt marsh and pot holes plants begin putting on new growth. The highly favored wigeongrass and several species of spike rush begin to make an appearance in the ponds. Three-cornered grass and coco, favorite of muskrat and blue geese, emerge from the marsh floor.

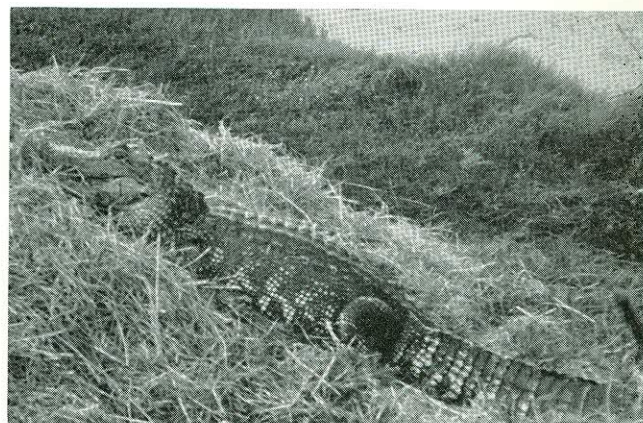
The occasional visitor to the marsh sees the vegetation without realizing the orderly fashion by which each group of plants occupy certain sites. Each plant species is restricted to a certain zone of water levels and water salinities. With this in mind the marsh manager is able to provide the conditions favorable to good wildlife food plants by constructing water controlling structures, and carefully regulating the structures. This work can result in a continual production of these desirable wildlife food plants in abundance necessary to attract or build up sizable populations of any species desired. Habitat improvement by dewatering areas in the fresh marsh during the growing season to produce annual grasses, and stabilizing salinities and water levels in the brackish marsh for the production of aquatics has proven favorable in increasing waterfowl utilization on marsh refuges of the Louisiana Wild Life and Fisheries Commission.

In addition to a beginning for marsh wildlife and vegetation, spring brings a new start for fish along the coast. Early spring finds young brown shrimp moving inland into estuaries and marsh ponds to occupy these areas as nursery grounds. The young of other marine fishes move inland into the marshes at this time where they will enjoy rapid growth in the fertile waters.

Gradually this scene of beginning and growth gives way to *summer, a scene for production*. The mottled ducks which we watched in courtship flight are now proudly displaying their newly hatched broods. The marshes of the fresher zone are completely dry and cracked, and the annual grasses push toward maturity as seed heads begin forming. The brown shrimp have matured, moved into open bays and finally into the gulf to later complete its life cycle. Also, other marine fishes move inland as the salinities increase and young white shrimp occupy the nursery grounds



The Spring Scene. Wild millet begins to germinate from a fresh marsh dried in June to produce seeds that are favorite food for ducks.



A Summer Scene—The season for production finds a female alligator on the nest in a Louisiana coastal marsh.

vacated by the brown. Summer is also the scene of lightning fires and hurricanes, both very destructive at times, but one more so than the other. As a result of the recent hurricanes thousands of acres of marshland have been damaged, levees broken, and salt water advanced into areas where once wild millet, panicums and other freshwater plants flourished. Lightning fires are numerous in the coastal marshes during the summer although their damages are very localized as advancement is stopped by the many bayous and canals.

Early flights of teal arrive in late summer for a short stay before continuing on to Central and South America.

As the summer scene fades out it makes way for the browns and yellows of autumn, a scene for maturing. The young brood of mottled ducks are now flying and have joined others of their kind forming a large group, to soon begin a dispersal over the coastal marshes and ponds. The female alligator is busy enlarging her den while her newly-hatched young are lazily enjoying the last glows of the autumn warmth. The tall annual grasses, now yellow with age and seeds matured, break in the winds and fall to the ground. Periodic rains increase and small ponds take shape in the stubble and fallen vegetation.

Eggs of the marsh mosquito, having lain dormant on the dry marsh for several months, hatch as the water returns, soon to become a nuisance to the visitor. White shrimp and other summer residents in shallow lakes, now mature, move to deeper water and higher salinities.

Marsh fires are more evident, now man made, preparing for the almost time clock arrival of the blue and snow geese to their ancestral wintering grounds. Also, fur trappers are using fire to remove rough grasses to better look over the prospects for the approaching trapping season. By mid-October the bulk of the other species of waterfowl begin arriving to set up winter residence in the coastal marshes.

As each day grows colder and the north winds grow stronger, the anxious hunter looks ahead and makes ready his equipment for the return of his favorite scene, winter—a season for utilization. *